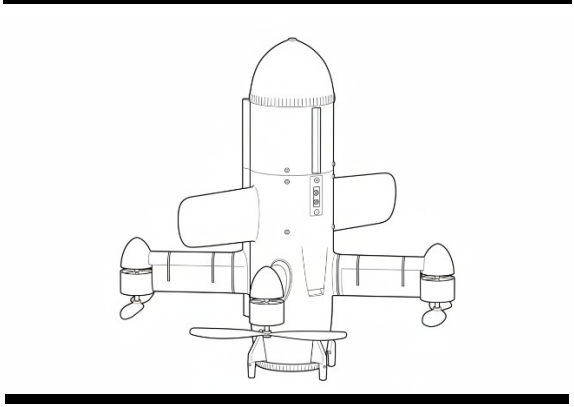
Wild Hornets Sting



Ukrainian Counter-UAS Interceptor Drone

Counter-UAS Data Card — Air Domain — Kinetic Interceptor

1. IDENTITY & DESIGNATION

Official Designation: Sting (Ukrainian: Стінг)

Manufacturer: Wild Hornets Charitable Fund (Ukrainian: Дикі шершні)

Country of Origin: Ukraine

Year Introduced: Series production early 2025; first combat kills May 2025

Organization Type: Non-profit charitable fund; private donations; not state-funded

Team Size: Approximately 25 engineers

Also Known As: Wild Hornets Sting; Sting interceptor

2. CLASSIFICATION

Domain: Air

Category: Military / Tactical — Counter-UAS Kinetic Interceptor

Sub-Category: Quadcopter interceptor drone; one-way attack against aerial targets

Terminal Mode: Expendable — kinetic impact / proximity detonation

Expendable: Yes — one use per engagement; returns to base if target already destroyed

Mission: Intercept and destroy Shahed-class one-way attack drones in mid-flight

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3. PHYSICAL SPECIFICATIONS

Configuration: Quadcopter — four rotors; bullet-shaped aerodynamic fuselage

Airframe: 3D-printed; aerodynamic bullet-shaped frame

Production: Elegoo and Bambu Lab FDM 3D printers; 65% locally sourced material

Production Rate: Over 10,000 units per month as of March 2025; 100 drones per day from 25 engineers

Assembly Time: Two minutes per unit

Deployment Time: Fifteen minutes from ready state to airborne

Camera System: Kurbas-640a thermal imaging camera from Odd Systems; engineered specifically for intercept missions

Payload: Approximately 400 grams explosive; proximity detonation within 2 meters of target

Weight: Not publicly disclosed

4. PROPULSION & PERFORMANCE

Propulsion: Electric; four rotors

Max Speed: 343 km/h (213 mph)

Cruise Altitude: Approximately 3,000 m (10,000 ft)

Max Range: 25 kilometers engagement range

Endurance: Up to 15 minutes per sortie

Launch: No catapult required; takes off from any flat surface

Return Capability: Returns to base if target already destroyed by another asset

5. GUIDANCE, NAVIGATION & CONTROL

Control Link: RF link; FPV pilot using VR goggles

Terminal Guidance: AI-assisted thermal imaging (Kurbas-640a); autonomous terminal phase when RF jammed

Autonomy Level: Semi-autonomous — operator directs intercept; AI handles terminal corrections and continues engagement if RF link severed

Target Acquisition: Operator visual + thermal camera; requires external detection and cueing (radar, EO, acoustic network)

Pilot Training: Three days to train experienced FPV pilot on Sting hardware

Operator Interface: VR goggles; compatible with any FPV ground station

AI Partner: Software developed with The Fourth Law (Yaroslav Azhnyuk); autonomous targeting module development ongoing

> ⚠ **PETER NOTE:** *The AI thermal fallback is the engineering solution that separates the Sting from earlier FPV interceptors. When Russian jamming cuts the RF link, the thermal seeker takes over and completes the intercept. You cannot jam thermal infrared. That single design decision is what makes*

> *the Sting operationally viable in the EW-saturated environment over Ukraine.*

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6. SENSORS & DEFEAT MECHANISM

Primary Sensor: Kurbas-640a thermal infrared camera (Odd Systems); optimized for aerial target discrimination

Defeat Mechanism: Direct kinetic impact or proximity detonation within 2 meters

No Explosives Variant: [VERIFY] — primary operational variant carries explosive payload

Target Set: Shahed-136 / Geran-2; Gerbera; Geran-3 jet-powered variant (first confirmed intercept November 30, 2025); Shahed modified with air-to-air missiles

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7. COST & PROCUREMENT

Unit Cost: Approximately $2,100–$2,500 per unit

Funding Model: Private donations; crowdfunding; non-profit charitable fund

Comparison — Shahed-136: $50,000–$150,000 Iranian production cost; cost-

exchange ratio 20:1 to 60:1 in defender's favor

Comparison — Patriot PAC-3: Over $4,000,000 per interceptor missile; cost-exchange ratio over 1,500:1

Export Status: Export ban in force; all production goes to Ukrainian forces; foreign purchase inquiries routed through Ukrainian government only

Foreign Interest: 11 nations formally requesting; Pentagon procurement inquiry; Gulf states (UAE, Qatar, Saudi Arabia, Bahrain, Jordan) pursuing acquisition

> ⚠ **PETER NOTE:** *The cost-exchange ratio is the master metric for this platform. At $2,500 per unit the Sting provides a cost-appropriate intercept layer for the Shahed-class threat tier. You do not spend a $4 million Patriot to kill a $50,000 drone when a $2,500 drone does it better and you can field thousands of them per day. Ukraine has solved the defender's dilemma for this threat tier. The Western defense establishment is still catching up to that arithmetic.*

8. OPERATIONAL HISTORY

May 2025: First combat kills; Wild Hornets published first thermal imaging intercept footage

October 2024: Prototype photographed by The Telegraph; public disclosure of development program

October 2025: Over 1,000 confirmed kills; 70% mission success rate per manufacturer

October 2025: 548 aerial targets destroyed by General Chereshnya and Wild Hornets interceptor family combined

November 30, 2025: First confirmed intercept of Geran-3 jet-powered Shahed variant — historic first; filmed by companion drone

November–December 2025: Responsible for 16.9% of all Shahed-type drones downed in Ukraine November 5–20

January 2026: Record monthly intercept: Ukrainian forces downed 1,704 Shaheds; 70% by interceptor drones including Sting

February 2026: Over 3,900 confirmed kills; interceptor drones credited with 70% + of Shahed destructions over Kyiv

March 2026: Pentagon procurement inquiry initiated; 11 nations requesting acquisition or training assistance

Deterrence Effect: 75% reduction in Russian Lancet strikes at fronts where Stings were deployed — behavioral deterrence multiplying kill count impact

Fox News Incident: Fox News misidentified Sting footage as American hardware during Iran war coverage; Wild Hornets corrected publicly on X

Denmark Exercise: Ukrainian specialists joined Danish forces for counter-drone exercises; Sting successfully destroyed target

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9. COUNTERMEASURE VULNERABILITY PROFILE

RF Jamming — HIGH. Primary RF control link is vulnerable in contested EW environments. However the AI thermal seeker provides autonomous terminal guidance when the RF link is severed — the intercept continues without human input. This partial autonomous fallback is the key resilience feature separating the

Sting from earlier FPV interceptors that simply crashed when jammed.

GPS Spoofing — LOW. GPS-dependent navigation but the short endurance (15 minutes) and 25 km range make GPS denial operationally marginal for the intercept mission profile. The thermal seeker handles terminal guidance independently of GPS.

EMI / EMC Attack — HIGH. Commercial and semi-commercial electronics throughout. No confirmed MIL-STD hardening. The same HPM vulnerability documented in Engineering Notes Episode One applies equally to the Sting. This is a design acceptance — you cannot build $2,500 interceptors at scale with full military electronics hardening. The cost philosophy accepts EMI vulnerability.

Microwave (HPM) Attack — HIGH. Unhardened commercial electronics. An adversary with deployed HPM C-UAS capability could theoretically engage Ukrainian interceptor drones as effectively as attacking drones. In current operational context Russia has no deployed HPM C-UAS equivalent. That could change.

Laser Directed Energy — LOW TO MODERATE. At 343 km/h with high maneuverability the Sting is a difficult laser target. Small cross-section. Rapid direction changes during intercept geometry reduce laser dwell time significantly.

Kinetic Intercept — VERY LOW. At 343 km/h the Sting is faster than every target it faces. No current adversary has a meaningful kinetic counter to an interceptor drone in the Ukraine operational context.

Overall Vulnerability Rating — MODERATE. Electronic vulnerabilities are real but largely theoretical in current operational employment. Russia has no deployed HPM C-UAS. The Sting's speed and maneuverability defeat kinetic intercept. The AI thermal fallback defeats jamming in the terminal phase. Short mission profile limits EW exposure windows.

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10. CONVERGENCE NOTES

The Wild Hornets Sting is the convergence thesis applied from the defender's side.

The same commercial technology cost collapse that created the Shahed-136 — 3D printing, commercial electronics, consumer-grade sensors, AI software — created its most effective counter. One in three Russian aerial targets destroyed over Ukraine in early 2026 fell not to a missile or a gun but to an interceptor drone costing less than a used car.

The non-profit origin is analytically significant. A volunteer organization with 25 engineers and private donations built the most combat-proven interceptor drone in the world before any Western defense contractor delivered a comparable system. That is the production speed and organizational agility that the convergence environment rewards.

The Sting also demonstrates the deterrence multiplier effect: 75% reduction in Lancet strikes at fronts where Stings were deployed. The interceptor's impact on Russian operator behavior — forcing mission aborts, longer evasive routes, and refused launches — may represent a larger contribution to Ukrainian air defense than the 3,900+ direct kills, because it creates a

deterrence effect that multiplies the Sting's impact far beyond what the kill count alone captures.

> ⚠ **PETER NOTE:** *Three years of watching Patriot missiles fired at Shaheds. The Sting is the answer the Western defense establishment has been slow to develop and Ukraine built it in a volunteer garage with private donations. That institutional lesson — about who moves fast, who bureaucratizes, and who actually solves problems under fire — is as important as the platform specifications.*

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11. MANUFACTURING PHILOSOPHY

Production Model: Non-profit charitable fund; 25 engineers; decentralized assembly

3D Printing: Elegoo and Bambu Lab FDM printers; 65% locally sourced materials

Supply Chain: Domestically sourced majority of components; reducing Chinese parts dependency

Scale: Over 10,000 units per month; eightfold production capacity growth in 2025

Repair Philosophy: Field-level assembly in two minutes; modular enough for rapid turnaround

Sister Products: Queen Hornets (heavy FPV bomber / mothership drone); Wild Dragon (incendiary); 10-inch FPV interceptors

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12. SOURCES & CROSS-REFERENCES

Wikipedia:
https://en.wikipedia.org/wiki/Sting_(drone)

Wild Hornets:
https://wildhornets.com/en/

CBS News:
https://www.cbsnews.com/news/us-ukraine-drone-defense-expertise-iran-war/

DroneXL Export Analysis:
https://dronexl.co/2026/03/16/ukraine-sting-interceptor-gulf-export-ban/

The Global Statistics:
https://www.theglobalstatistics.com/sting-drone-statistics/

Ukraine Arms Monitor:
https://ukrainesarmsmonitor.substack.com/p/sting-interceptor-drone-by-wild-hornets

Defense News: https://www.defensenews.com/global/europe/2026/03/05/novel-interceptor-drones-bend-air-defense-economics-in-ukraines-favor/

Cross-Ref: General Chereshnya Bullet (companion Ukrainian interceptor); SkyFall P1-SUN (fixed-wing interceptor alternative); JEDI Shahed Hunter (radar-cued interceptor); Shahed-136/Geran-2 (primary target system); Raytheon Coyote Block 3NK (HPM C-UAS for comparison)